

Remarks/Arguments

Claims 1 and 10 remain in this application.

Claims 2-9 have been canceled.

Claim 10 has been added.

In response to the Office Action of January 4, 2007, Applicant requests re-examination and reconsideration of this application for patent pursuant to 35 U.S.C. 132.

Rejection under 35 USC 103(a)

Claims 1,2 and 4-9 stand rejected under 35 USC 103(a) as being unpatentable over Japan (8-84964) in view of Sundheim (US 4,191,590). The Examiner's position is respectfully traversed. It is believed that the claims as amended distinguish over the prior art of record.

Japan '964 discloses a cleaning apparatus aimed at cleaning paint from the floors of paint booths in the automotive industry. The device includes an elongated spray bar. At each of the distal ends of the spray are mounted three nozzles. One nozzle (the penetrant nozzle) is directed forward and downward with respect to spray bar rotation and inward with respect to the axis of rotation. The second nozzle is directed rearward and downward with respect to spray bar rotation and outward with respect to the axis of rotation so that the spray paths of the first and second nozzles are

identical. The third nozzle is directed rearwardly and upwardly with respect spray bar rotation and inward with respect to the axis of rotation. Within the disclosure the penetrant nozzle always faces forward (par. 0006, 0009, 0026) to provide the impingement necessary to remove the overspray from the floor of the paint booth while the second nozzle follows behind in the exact same path. The third nozzle is positioned to point upwardly and rearwardly to cause the spray bar to rotate against the force caused by the spray of the first nozzle and can be adjusted to control the rotational speed of the spray bar.

Sundheim (US 4,191,590) discloses a cleaning apparatus for carpets and surfaces. The Sunheim device includes a spray bar having arms of unequal length with a single nozzle mounted at the distal end of each of the arms. The nozzles are secured to the spray bar to direct their spray in front of the spray bar to "add to the existing velocity of the stream issuing from the outlet nozzle means" (Col. 5, lines 30-36). An electric motor is provided to cause rotation of the spray bar against the opposing force generated by expelling fluid from the nozzles.

In contrast, the instant invention provides a spray bar having arms of equal length. Two or more nozzles are mounted at each of the distal ends of the spray bar at different angles so that only a portion of the spray from one nozzle is overlapped by the other

nozzle to provide a cleaned path having significantly increased width. All of the nozzles provide motive force to cause rotation of the bar in addition to providing impingement to the surface for cleaning. The overlapping patterns of the nozzles allow the device to be moved across a surface at a greater velocity without causing a streaked surface as is seen in devices with a single nozzle at the ends of the spray bar (Sundheim) or where the nozzles are positioned to follow one exactly behind the other (Japan). In addition, the nozzle configuration of the instant invention permits cleaning delicate surfaces such as shingled roofs and the like that would be destroyed by the aggressive nature of the prior art devices. Instead of concentrating the impingement upon a small area for aggressive and destructive blasting in a single pass of the spray bar, the instant invention concentrates on spreading the impingement across a larger area that is cleaned multiple times as the device is progressed across a surface. One of ordinary skill in the art would not be motivated to modify Japan '964 or combine the teachings of Japan '964 and Sundheim to create the instant invention. Both the Japan and Sundheim references angle the nozzles in a forward direction to increase the impingement velocity of the cleaning fluid above the velocity that it leaves the nozzle. To further increase the impingement a single nozzle or nozzles that exactly overlap the same small area being cleaned are used.

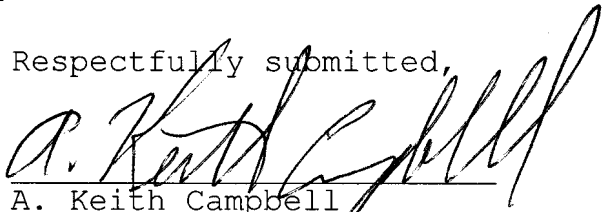
Second there must be a reasonable expectation of success. One skilled in the art would not expect to be successful in combining Japan and Sundheim to create the instant invention. Both Japan and Sundheim are concerned with creating the most impingement possible over a small area as demonstrated by the forward facing nozzles that increase velocity of the exiting fluid for impact against the surface being cleaned. Finally, the prior art reference must teach or suggest all of the claim limitations. The claims of the instant invention, as currently amended, require all of the nozzles to be directed downwardly and rearwardly to cause rotation of the spray bar. In addition, the nozzles are positioned along the longitudinal axis of the spray bar so that the edges of the sprays only slightly overlap to create an extra wide spray pattern that allows multiple passes over the same area to create an unswirled surface. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not base on applicant's disclosure *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2143-§2143.03.

SUMMARY

In light of the foregoing remarks and amendment to the claims, it is respectfully submitted that the Examiner will now find the claims of the application allowable. Favorable reconsideration of the application is courteously requested. Should there be any remaining issues which can be resolved via an Examiner's Amendment, the Examiner is urged to call the undersigned in order to expedite the prosecution of this application.

The Commissioner for Patents is hereby authorized to charge the appropriate fee in the amount of \$60.00 required by the Petition for Extension of Time to Deposit Account No. 13-0439. In addition, the Commissioner for Patents is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayments in any fees paid on the filing to Deposit Account No. 13-0439.

Respectfully submitted,


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